

**REMARKS**

The Applicants do not believe that entry of the foregoing amendment will result in the introduction of new matter into the present application for invention. Therefore, the Applicants, respectfully, request that the amendment be entered in and that the claims to the present application, kindly, be reconsidered.

The Final Office Action dated January 3, 2006 has been received and considered by the Applicants. Claims 1-7 and 10-20 are pending in the present application for invention. Claims 1-7 and 10-20 are rejected by the January 3, 2006 Final Office Action.

The Examiner made the January 3, 2006 Office Action final based on the assertion that Applicants' amendment necessitated a new ground(s) of rejection. The Applicant hereby asserts the finality of the January 3, 2006 Office Action is premature. The MPEP §706.07(a) details when a Final Rejection is proper on second action.

"Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c)."

The Office Action dated January 3, 2006 contains a rejection of claims 4-7 under the provisions of 35 U.S.C. §103(a) as being obvious over Glogau et al. in view Bloom et al. and further in view Wirtz. The Examiner states that Glogau et al. in view Bloom et al. do not explicitly teach the linear feedback shift register (LFSR) being over a Galois Field. The Examiner then asserts that the choice of a minimal and irreducible polynomial function would have been obvious to a person of ordinary skill within the art. The Applicants respectfully, point out that this is a new rejection that has never before been made during the prosecution for the present application for invention. This new rejection was not caused by any amendment that was ever made in the present application for invention by the Applicants. The subject matter for the linear feedback shift register (LFSR) being over a Galois Field as been defined by the claims to the present invention since this case was originally filed. No previous amendment submitted by the Applicants has altered the subject matter for a linear feedback shift register (LFSR) being over a Galois Field as defined by the claims 4-8 of the present invention since this case was originally filed.

Therefore, the finality of the rejection is premature at least regarding the subject matter for a linear feedback shift register (LFSR) being over a Galois Field as defined by the claims 4-8. The Applicants hereby request that the Primary Examiner reconsider the holding of finality for the rejection and remove this holding of finality.

Accordingly, at least pertaining to claims 4-8, the holding of finality is premature. The Applicant, respectfully, requests that the Primary Examiner reconsider the holding of finality of the January 3, 2006 Office Action and withdraw the finality of the January 3, 2006 rejection.

The foregoing amendment to the claims has been made to fully respond to a Final Office Action, which finality is fully anticipated to be withdrawn because it is premature. The Applicant, therefore, reasonably anticipates an opportunity to respond to a non-final office action, which response may include the rescinding of the changes made by the foregoing amendment.

The foregoing amendment to the claims adds new claims 21 and 22. New claims 21 and 22 are identical duplicates to former claim 8 and 9 that were cancelled by the Applicants in a response dated December 1, 2005 after the Advisory Action mailed November 16, 2005 stated that claims 1-7 and 10-20 were allowed and that only claims 8 and 9 were at that time rejected. Therefore, in an effort to allow claims 1-7 and 10-20 to issue, on December 1, 2005 claims 8 and 9 were cancelled. On January 3, 2006, another Final Office Action issued that again rejects claims 1-7 and 10-20. Therefore, the Applicants have invoked their right to reinstate claims 8 and 9 as new claims. The addition of claims 21 and 22 does not raise any new issues because these claims have already been examined as former claims 8 and 9, respectively. The dependency of claim 10 has been changed by the foregoing amendment to reflect the reinstatement of former claims 8 and 9 as new claims 21 and 22.

The MPEP at §608.01(s) states a "claim canceled by amendment (deleted in its entirety) may be reinstated only by a subsequent amendment presenting the claim as a new claim with a new claim number." The Applicants, respectfully, point out that the only reason former claims 8 and 9 were cancelled was because the Advisory Action mailed November 16, 2005 stated that claim 1-7 and 10-20 were allowed and that the only rejected claims were 8 and 9. It was believed that the cancellation of claims 8 and 9

would allow the present application for invention to issue as letters patent. However, since the Examiner issued a new rejection in the January 3, 2006 Final Office Action, the Applicants, hereby reinstate the subject matter defined by former claims 8 and 9 in new claims 21 and 22.

The Applicants further point out that the reinstatement of former claims 8 and 9 as new claims 21 and 22 does not require any additionally fee. The reinstatement of former claims 8 and 9 as new claims 21 and 22 leaves a total of 20 claims to be examined; therefore, no additional fee is required.

The Final Office Action objects to claims 10-12 because their dependency is incorrect. The dependency of claims 10-12 is incorrect due to the cancellation of former claims 8 and 9. The foregoing amendment to the claims as reinstated former claims 8 and 9 as new claims 21 and 22, in order to obviate this objection.

The Final Office Action rejects Claim 10-12 under the provisions of 35 U.S.C. §112, second paragraph, for failing to set forth the subject matter that the Applicants regard as the invention. The dependency of claims 10-12 is incorrect due to the cancellation of former claims 8 and 9. The foregoing amendment to the claims as reinstated former claims 8 and 9 as new claims 21 and 22, in order to obviate this rejection.

The Final Office Action rejects Claims 1-3 and 13-20 under the provisions of 35 U.S.C. §102(a) as being anticipated by an article within C.B.S. Proceedings of the IEEE, Volume: 87, Issue: 7, July 1999, pp. 1267-1276), entitled "Copy protection for DVD video", authored by Bloom, J.A.; Cox, I.J.; Kalker, T.; Linnartz, J.-P.M.G.; Miller, M.L.; Traw, (hereinafter referred to as Bloom et al.).

The Examiner states that Bloom et al. is directed to copy protection using watermarking and teach watermarking as a technique for hiding information directly in video on page 1269, col. 1. The Examiner further states that Bloom et al. teach an embedded watermark within a content that reads on a second signal logically embedded in a first signal; however, the Examiner fails to indicate where this subject matter is disclosed or suggested by Bloom et al.

The Examiner further states that Bloom et al. teach DVD employing a wobble within a disc that can be detected upon insertion of a disc into a compliant drive

to read the payload. The Examiner further states that Bloom et al. teach that only if the transformed wobble bits match the additional watermark payload then playback allowed.

The Examiner's position is that Bloom et al. teach the subject matter for only if the transformed wobble bits match the additional watermark payload then playback allowed discloses the subject matter for "a second signal logically embedded in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier, and on the second signal being used for refusing playback of the information read from the information carrier if the second signal but no physical mark is detected." The Applicants can not concur with these allegations contained within the Final Office Action. The Examiner is reading the wobble within Bloom et al. being the physical mark. The rejection attempts to employ the wobble groove as the physical mark and the second signal. The Applicants, respectfully, point out that it is impossible for Bloom et al. to anticipate the rejected claims because the subject matter for the second signal but no physical mark is detected is not disclosed or suggested by Bloom et al. Therefore, this rejection is respectfully traversed.

The Final Office Action rejects Claims 4-7, under the provisions of 35 U.S.C. §103(a) as being unpatentable over International Publ. No. WO 99/11020 (Glogau et al.) in view Bloom et al.) and further in view of U.S. Patent No. 5,940,134 issued to Wirtz. (hereinafter referred to as Wirtz).

The Examiner states that Glogau et al. teach the first signal in which a second signal is logically embedded. The Examiner further states that Glogau et al. do not teach a physical mark used for storing at least part of the information on the information carrier and for refusing playback if the second signal bit no physical mark has been detected.

The Examiner asserts that Bloom et al. teach that a physical mark is used for storing information on the information carrier and refusing playback if the second signal but no physical mark has been detected. The Applicants assert that this allegation by the Examiner is without merit. The construction made by the Examiner in the rejection is impossible to sustain because the rejected claims define subject matter for "if a second signal but no physical mark are detected". Therefore, the rejected claims can not be read so broadly as to encompass the wobble groove as the first signal because

this is not possible in view of the wording of the rejected claims. The first signal can not be the physical mark. Accordingly, the rejection does not address all the elements defined by the rejected claims.

There is no disclosure or suggestion within Bloom et al. for a second signal that is logically embedded in the first signal indicating that a physical mark is used for storing at least part of the information on the information carrier. Additionally, there is no disclosure or suggestion within Bloom et al. for the second signal to contain a single bit trigger that may be used for refusing play back of the information read from the information carrier if a second signal but no physical mark has been detected.

The Examiner states that Wirtz in the Abstract and col. 2, lines 43-47 teaches that the first signal/physical mark in which a second signal is logically embedded, and which could be used for refusing play back of the information read from the information carrier if a second signal but no physical mark were detected. The Applicants, respectfully point out that Wirtz teaches to check the embedded watermark against the disc's wobble key and reproduce the signal if the authenticity of the signal is acknowledged. The Examiner appears to be reading the first signal and the physical mark as being one in the same with the second signal being the disc's wobble key taught by Wirtz being embedded within the within the wobble groove (the physical mark). This construction is impossible because the rejected claims define subject matter for "if a second signal but no physical mark are detected". Therefore, the rejected claims can not be read so broadly that the first signal encompasses the wobble groove because this is not possible in view of the wording of the rejected claims. The first signal can not be the physical mark. Accordingly, the rejection does not address all the elements defined by the rejected claims.

This rejection does not make a *prima facie* case of obviousness. Therefore, this rejection is respectfully traversed.

Regarding the above discussed rejection of claims 4-7 under the provisions of 35 U.S.C. §103(a) as being obvious over Glogau et al. in view Bloom et al. and further in view Wirtz, the Examiner states that Glogau et al., in view Bloom et al., do not explicitly teach the linear feedback shift register (LFSR) being over a Galois Field. The Examiner then assert that the choice of a minimal and irreducible polynomial

function would have been obvious to a person of ordinary skill within the art. The Applicants respectfully, point out that this is a new rejection that has never before been made during the prosecution for the present application for invention. This new rejection was not caused by any amendment that was ever made in the present application for invention by the Applicants. The subject matter for the linear feedback shift register (LFSR) being over a Galois Field as been defined by the claims to the present invention since this case was originally filed. Therefore, the finality of the rejection is premature. The Applicants hereby request that the Primary Examiner reconsider the holding of finality for the rejection and remove this holding of finality.

The Final Office Action rejects Claims 10, 11 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Glogau et al. in view Bloom et al. and further in view of Wirtz. The Examiner states that the combination of Glogau et al. with Bloom et al. and Wirtz does not disclose or suggest selecting the key from at least one of two groups of keys. The Examiner takes Official Notice that is old and well known to have more than one key available in the system. The Examiner alleges that Taguchi et al. (U.S. Patent No. 5,915,025) teach multiple groups with multiple keys. The Applicants assert that Taguchi et al. do not disclose or suggest an apparatus as defined by claim 10, wherein a key detection algorithm is used to select the key and to decode from which group of keys said key has been selected an apparatus as defined by claim 11, wherein the decoding algorithm comprises an examining process of the outcome of projecting an n-bit key onto a set of fixed n-bit numbers.

Therefore this rejection is traversed.

The Final Office Action, apparently, rejects Claim 12 under the provisions of 35 U.S.C. §103(a) as being unpatentable over Glogau et al. in view Bloom et al. and further in view of Wirtz. The Examiner states that the combination of Glogau et al. with Bloom et al. and Wirtz does not disclose or suggest that the examining process takes the form of going down a binary tree, where going left is caused by projection-value 0 and right by projection in value non-zero. The Examiner takes Official Notice that is old and well known to use a binary search for more efficient searching and also that in a binary tree going one direction is caused by one projection value and another direction caused by another projection value. The Examiner cites "Algorithms", second edition, 1998, ISBN: 0201066734, pg. 198 by Robert Sedgewick

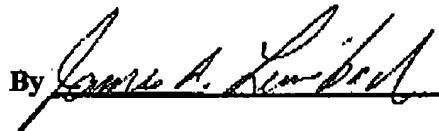
(hereinafter Sedgewick) for support of this allegation. The Applicants assert that Sedgewick does not disclose or suggest an examining process that takes the form of going down a binary tree, where said going left is caused by projection-value 0 and right by projection in value non-zero as defined by claim 12. Therefore, this rejection is traversed. .

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

The Commissioner is hereby authorized to credit any overpayment or charge any fee (except the issue fee) including fee for any required extension of time, to Account No. 50-3745.

Respectfully submitted,

By 

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